UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,163	03/12/2004	Vijay Deshmukh	5693P048	9062

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EXAMINER
LE, MIRANDA

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08/05/04* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)	5) ☐ Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) ☐ Other: _____ .

DETAILED ACTION

Claim Objections

1.   Claim 25 is objected to because of the following informalities: Claim 25, lines 4-5, "the

agent *to scan* to the storage server" should be changed to "the agent *scans* to the storage server";

and line 6, "*the agent to assign ID numbers to nodes*" should be changed to *"the agent assigns*

ID numbers to nodes". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless:
>
> (e) the invention was described in
>
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or
>
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Mauldin (US

Patent No. 6,578,048).

Mauldin anticipated independent claim 28 by the following:

As per claim 28, Mauldin teaches a method for creating a logical tree comprising:

examining a first directory *(i.e. file 30, col. 5, lines 21-28)* from a top of a directory

queue, and determining a set of children of the directory *(i.e. files 32, 33, 34, and 35, col. 5, lines*

21-28) (col. 6, lines 9-61).

assigning an ID to the first directory *(i.e. constructing a catalog of the files stored on a*

network, col. 2, line 28 to col. 3, line 11);

examining the set of children and determining a first subset of files and a second subset

of directories *(i.e. each of files 32-35 have a plurality of pointers to other files, col. 5, lines 21-*

28); and

placing the second subset on the top of the directory queue *(col. 6, lines 9-61).*

As per claim 29, Mauldin teaches the method of claim 28, wherein the ID is a depth first

search (DFS) ID *(col. 4, lines 21-42).*

As per claim 30, Mauldin teaches the method of claim 28, further comprising placing the

first subset of files in a file queue *(col. 6, lines 9-61).*

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.   Claims 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauldin

(US Patent No. 6,578,048), in view of Ferrel et al. (US Patent No. 6,199,082).

As per claim 31, Mauldin does not specifically teach a directory walking thread

examining the directory queue; and a file thread examining the file queue.

However, Ferrel teaches a directory walking thread examining the directory queue; and a

file thread examining the file queue *(col. 57, lines 12-30).*

It would have been obvious to one of ordinary skill of the art having the teaching of

Mauldin and Ferrel at the time the invention was made to modify the system of Mauldin to

include a directory walking thread examining the directory queue; and a file thread examining

the file queue as taught by Ferrel. One of ordinary skill in the art would be motivated to make

this combination in order to determine whether any search objects need to be resolved for the

customer selected title in view of Ferrel *(col. 59, lines 30-48),* as doing so would give the added

benefit of providing such a system that is efficient distribution, content published separately from

the layout, separation of responsibilities, hardware independence, automatically placed content

and personalized titles as taught by Ferrel *(Summary).*

As per claim 32, Mauldin teaches the method of claim 31, wherein examining the file

queue further comprises recording an information about a first file taken from the file queue *(col.*

2, line 28 to col. 3, line 11).

6.   Claims 1-27, 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kodama (US Pub. No. 20050086192), in view of Ferrel et al. (US Patent No. 6,199,082).

As to claims 1, 10, Kodama teaches a method for creating a file information comprising:

scanning *(i.e. parsing, [0028])* a storage server *(i.e. the file server(s) , [0028])* having a

directory structure *(i.e. A typical function of most search engines is the creation and maintenance*

of an index, [0027]) ([0053-0064]);

collecting *(i.e. search)* data regarding the directory structure *([0025-0029]);*

assigning an identification (ID) number *(i.e. index)* to a directory in the directory

structure *([0025-0029; 0053-0064]); and*

writing a data structure including the ID number *(i.e. to create the index database,*

[0028]) ([0025-0029; 0053-0064]).

Kodama does not explicitly teach the directory structure according to a depth first search

(DFS) order. Ferrel teaches the directory structure according to a depth first search (DFS) order

(Figs. 4, 17, 19).

It would have been obvious to one of ordinary skill of the art having the teaching of

Kodama and Ferrel at the time the invention was made to modify the system of Kodama to

include the directory structure according to a depth first search (DFS) order as taught by Ferrel.

One of ordinary skill in the art would be motivated to make this combination in order to

determine whether any search objects need to be resolved for the customer selected title in view

of Ferrel *(col. 59, lines 30-48)*, as doing so would give the added benefit of providing such a

system that is efficient distribution, content published separately from the layout, separation of

responsibilities, hardware independence, automatically placed content and personalized titles as

taught by Ferrel *(Summary)*.

    As per claim 19, Kodama teaches an apparatus comprising:

    a server having a mass storage device *(i.e. NFS/CIFS server, Fig. 1)*;

    an agent *(i.e. client, Fig. 1)* couple to the server, the agent to collect information

regarding directories stored on the mass storage device and to assign identification (ID) number

(i.e. index) ([0025-0029; 0053-0064]; Fig. 1); and

    a database server *(i.e. index database)* coupled to the server and the agent to store the

information *(Fig. 1)*.

    Kodama does not expressly teach a DFS manner to the directories.

    However, Ferrel teaches a DFS manner to the directories *(Figs. 4, 17, 19)*.

    It would have been obvious to one of ordinary skill of the art having the teaching of

Kodama and Ferrel at the time the invention was made to modify the system of Kodama to

include a DFS manner to the directories as taught by Ferrel. One of ordinary skill in the art

would be motivated to make this combination in order to determine whether any search objects

need to be resolved for the customer selected title in view of Ferrel *(col. 59, lines 30-48)*, as

doing so would give the added benefit of providing such a system that is efficient distribution,

content published separately from the layout, separation of responsibilities, hardware

independence, automatically placed content and personalized titles as taught by Ferrel

(Summary).

As per claim 25, Kodama teaches an apparatus comprising:

a multi-appliance management application (MMA) to manage a storage server *(i.e.*

NFS/CIFS server, Fig. 1);

an agent *(i.e. client, Fig. 1)* couple to the MMA, the storage server, and a database server

(i.e. index database), the agent scans to the storage server and collect data regarding files on the

storage server, and while scanning the storage server, the agent assigns ID numbers to nodes on

the file server *(i.e. index) ([0025-0029; 0053-0064]; Fig. 1).*

Kodama does not teach explicitly a depth first search (DFS) order.

However, Ferrel teaches a depth first search (DFS) order *(Figs. 4, 17, 19).*

It would have been obvious to one of ordinary skill of the art having the teaching of

Kodama and Ferrel at the time the invention was made to modify the system of Kodama to

include the depth first search (DFS) order as taught by Ferrel. One of ordinary skill in the art

would be motivated to make this combination in order to determine whether any search objects

need to be resolved for the customer selected title in view of Ferrel *(col. 59, lines 30-48),* as

doing so would give the added benefit of providing such a system that is efficient distribution,

content published separately from the layout, separation of responsibilities, hardware

independence, automatically placed content and personalized titles as taught by Ferrel

(Summary).

As per claim 33, Kodama teaches a method for creating a file information comprising:

scanning *(i.e. parsing, [0028])* a storage server *(i.e. the file server(s) , [0028])* having a directory structure *(i.e. A typical function of most search engines is the creation and maintenance of an index, [0027]) ([0053-0064])*;

collecting *(i.e. search)* data regarding the directory structure and regarding files stored on the storage server using an agent *([0025-0029])*;

assigning an identification (ID) number *(i.e. index)* to a directory in the directory structure while collecting the data *([0025-0029; 0053-0064]); and*

writing a table including the ID number and the data *(i.e. to create the index database, [0028]) ([0025-0029; 0053-0064; Figs. 2A, 9])*.

Kodama does not specifically teach the directory structure according to a depth first search (DFS) order. Ferrel teaches the directory structure according to a depth first search (DFS) order *(Figs. 4, 17, 19)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Kodama and Ferrel at the time the invention was made to modify the system of Kodama to include the directory structure according to the depth first search (DFS) order as taught by Ferrel. One of ordinary skill in the art would be motivated to make this combination in order to determine whether any search objects need to be resolved for the customer selected title in view of Ferrel *(col. 59, lines 30-48)*, as doing so would give the added benefit of providing such a system that is efficient distribution, content published separately from the layout, separation of responsibilities, hardware independence, automatically placed content and personalized titles as taught by Ferrel *(Summary)*.

As to claims 2, 11, Kodama teaches scanning and collecting comprise scanning and collecting by using an agent separate from the storage *(Fig. 1; [0023-0031])*.

As to claims 3, 12, Kodama teaches the agent has a first file system, and the storage server has a second file system, and wherein the first system is different from the second file system *(Fig. 1; [0023-0031])*.

As to claims 4, 13, Kodama teaches writing a data structure comprises:

writing a first subset of the data structure including the ID number of the directory *([0025-0029; 0053-0064]); and*

writing a second subset of the data structure including a second ID number of a parent of the directory *([0025-0029; 0032-0037; 0053-0068]; Figs. 2A, 9)*.

As to claims 5, 14, Kodama teaches assigning further comprises assigning the ID numbers while collecting the data *([0025-0029; 0053-0064])*.

As to claims 6, 15, Kodama teaches the data structure comprises writing the data structure to a database server *([0025-0029; 0053-0064])*.

As to claims 7, 16, Kodama teaches receiving a request to determine the parent of the directory *([0058-0068]); and*

referencing the second column of the data structure to determine the parent *([0025-0029; 0032-0037; 0053-0068]; Figs. 2A, 9).*

As to claims 8, 17, Kodama teaches receiving a request to determine an immediate child of the directory *([0025-0029; 0053-0068]);*

searching the second subset of the data structure to find a third subset including the ID number of the directory *([0025-0029; 0053-0068]); and*

determining the immediate child by referencing the first column and the third subset *([0025-0029; 0053-0068]).*

As to claims 9, 18, Kodama teaches receiving a request to determine a set of ID numbers of every child of the directory *([0025-0029; 0032-0037; 0053-0068]; Figs. 2A, 9);*

determining a second ID number of a sibling of the directory *([0025-0029; 0032-0037; 0053-0068]; Figs. 2A, 9); and*

determining the set of ID number is between the ID number of the directory and the second ID number *([0025-0029; 0032-0037; 0053-0068]; Figs. 2A, 9).*

As per claim 20, Kodama teaches the server is a file server *(Fig. 1; [0023-0031]).*

As per claim 21, Kodama teaches the server and the agent user different file systems *(Fig. 1; [0023-0031]).*

As per claim 22, Kodama teaches the server uses one of a common internet file system (CIFS) and a network file system (NFS) and wherein the agent uses the other of the CIFS and NFS *(Fig. 1; [0023-0031])*.

As per claim 23, Kodama teaches the information is stored in a data structure *(Fig. 1; [0023-0031])*.

As to claims 24, Kodama teaches the data structure includes columns to store the ID numbers of the directories, the ID number of parents of the directories, a size of the directories, a creation time of the directories, and a name of the directories *(Figs. 2A, 9; [0032-0037; 0058-0059)*.

As per claim 26, Kodama teaches the agent writes the ID numbers to a table stored on the database server *(Figs. 2A, 9; [0032-0037; 0058-0059)*.

As per claim 27, Kodama teaches the agent may have a first system different from a second file system of the storage server *(Fig. 1; [0023-0031])*.

As per claim 34, Kodama teaches the agent is separate form the storage server *(Fig. 1; [0023-0031])*.

As per claim 35, Kodama teaches using an MMA to control the agent *([0023-0031;*

0053-0064]; Fig. 1).

As per claim 36, Kodama teaches the storage server is a filer *([0023-0031; 0053-0064];*

Fig. 1).

As per claim 37, Kodama teaches the storage server has first file system and the agent

has a second file system different form the first file system *([0023-0031; 0053-0064]; Fig. 1).*

As per claim 38, Kodama teaches generating a GUI using the MMA *([0029]).*

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's
disclosure.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The
examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art
Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group receptionist whose telephone number is (703) 305-3900.

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PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
September 22, 2006

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